ORIGINAL

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation	)	ET Docket No. 93-62

REPLY OF GTE

GTE Service Corporation, on behalf of its affiliated domestic telephone, equipment and service companies ("GTE"), hereby replies to the comments filed on the above-captioned *Notice of Proposed Rulemaking*.[1] In its opening comments,[2] GTE supported the Commission's plan to update its radiofrequency radiation exposure guidelines to reflect the 1992 standards developed by the Institute of Electrical and Electronic Engineers ("IEEE") and confirmed by the American National Standards Institute ("ANSI"). GTE also provided specific suggestions for applying the new policies to transmitters in mobile and Part 15 services.

GTE's views were shared by the vast majority of commenters. More than 70 parties representing service providers, manufacturers and government organizations filed comments that reflect common agreement. As discussed below, there is a consensus in the record, *first*, that the Commission should

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1 8 F.C.C. Rcd 2849 (1993) (hereinafter *Notice*).

2 Comments of GTE Service Corporation, ET Docket No. 93-62 (filed Jan. 25, 1994).

adopt the revised ANSI/IEEE standard on RF exposure, *second,* that the agency should minimize the burdens of compliance for entities subject to the new standards and, *third,* that the Commission should investigate whether preemption of inconsistent state regulation that frustrates Federal objectives is warranted.

I. THE RECORD SUPPORTS ADOPTION OF THE ANSI/IEEE STANDARD FOR EVALUATING RF EXPOSURE FROM FCC LICENSED TRANSMITTERS

The Commission's current rules require conformance to the 1982 ANSI RF exposure standard.[3] In the *Notice,* the Commission proposed to update its regulations to refer to the 1992 revision of the ANSI standard on RF radiation exposure adopted by the ANSI and IEEE.[4] The Commission explained that, although it did not possess the expertise to develop its own radiation exposure standard, it could recognize technically sound approaches promulgated by reputable organizations.[5]

GTE supported this plan, noting that the ANSI/IEEE standard was based on voluminous scientific research conducted and debated over the course of ten years in open forums.[6] GTE further noted that the standard was itself based on conservative assumptions with significant safety factors, resulting in large

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3 47 C.F.R. § 1.1307(b).

4 ANSI/IEEE C95.1-1992, Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz (issued by ANSI Apr. 27, 1992; previously issued by IEEE Sept. 26, 1991).

5 *Notice,* 8 F.C.C. Rcd at 2850.

6 GTE Comments at 5-6.

margins even under worst case conditions.[7] Indeed, to place the Commission's plan in perspective, it is important to note the ANSI/IEEE finding, following extensive study, that "no verified reports exist of injury to human beings or of adverse effects on the health of human beings who have been exposed to electromagnetic fields within the limits of frequency and SAR specified by previous ANSI standards."[8] Based on the available scientific evidence, ANSI/IEEE concluded that even the highest exposure limits should be "safe for all."[9]

The overwhelming volume of commenters recognized the conservative nature of the ANSI/IEEE approach. Accordingly, nearly all commenters support the Commission's proposal to use the revised 1992 ANSI/IEEE guidelines as the basis for the agency's RF exposure regulations.[10] Like GTE, most commenters

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7 *Id.* at 6-7.

8 ANSI/IEEE Standard, § 6.

9 *Id.*; *see* GTE Comments at 6-7.

10 *See* Comments of American Telephone and Telegraph ("AT&T") at 2; ("[T]he 1992 standard represents the most recent and comprehensive review of relevant information and the broadcast consensus of the engineering and scientific community"); Association of Maximum Service Television and National Broadcasting Company, Inc. ("AMSTV/NBC") at 2 ("[T]he Commission's proposal to incorporate the 1992 ANSI/IEEE standard is fundamentally sound."); Apple Computer, Inc. at 2 ("[T]he adoption of this [1992 ANSI/IEEE] standard. . . is in the public interest.") *See also* Comments of American Personal Communications at 2; Arizona Department of Public Safety ("Arizona") at 7; BellSouth Corporation, BellSouth Telecommunications, Inc., BellSouth Enterprises, Inc., and BellSouth Cellular Corporation ("BellSouth") at 1; CBS, Inc., Capital Cities/ABC Inc., Greater Media, Inc., Tribune Broadcasting Company, and Westinghouse Broadcasting Company, Inc. ("CBS et al.") at 12-17; Cellular Telecommunications Industry Association at ("CTIA") 2-3, 5-6; Cohen, Dippell & Everist, P.C. ("CD&E") at 1; Jules Cohen & Associates, P.C. ("JC&A") at 1; Department of Defense ("DoD") at 2; E.F. Johnson Company ("E.F. Johnson") at 2-3, 8-9; Electromagnetic Energy Policy Alliance ("EEPA") at 1-2; Ericsson Corporation ("Ericsson") at 2, 4; Food and Drug Administration ("HHS/FDA") at 1; IEEE - United States Activities Committee on Man and Radiation ("IEEE COMAR") at 1; Land Mobile Communications Council ("LMCC") at 3; McCaw Cellular Communications, Inc.

endorse the ANSI/IEEE process and approach, and the record reflects a consensus that the ANSI/IEEE C95.1-1992 is the best available standard. Indeed, for the most part, the government agencies that filed comments are in substantial agreement that the ANSI/IEEE standards are appropriate.[11]

The record also supports revising the FCC's exposure guidelines to implement the two-tier exposure limits in the ANSI/IEEE standard. Unlike the existing 1982 standard, the proposed guidelines would distinguish between "controlled" and "uncontrolled" environments. Controlled environments are areas where access is restricted to transients and persons aware of the potential for RF exposure. Uncontrolled environments are designed for the general public and -- in most of the relevant frequency range -- the standard contains an extra margin of safety for their protection. GTE agrees that this two-tier approach is appropriate, and also supports those commenters noting that the definitions

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("McCaw") at 2-6; Motorola, Inc. ("Motorola") at 1-2; National Association of Business and Educational Radio, Inc. ("NABER") at 2-3; Northern Telecom Inc. ("Northern Telecom") at 1, 7; Pacific Bell and Nevada Bell at 1; PacTel Corporation ("PacTel") at 2; Paging Network, Inc. at 3-4; Raytheon Corporation at 1-2; Southwestern Bell Mobile Systems, Inc. ("SWBT") at 2; Sprint Cellular Company ("Sprint Cellular") at 1; Telecommunications Industry Association ("TIA") at 1; Telocator ("Telocator") at 2-3; TRW, Inc. at 12-13; United States Telephone Association ("USTA") at 1-2; Utilities Telecommunication Council ("UTC") at 1.

11 *See* DoD Comments at 2 ("We recommend that the FCC adopt the RF exposure guidelines as published and as defined in ANSI/IEEE C95.1-1992."); HHS/FDA Comments at 1 ("[T]he replacement by the FCC of the ANSI C95.1-1982 guidelines with most of the provisions of the ANSI/IEEE C95.1-1992 guidelines is appropriate and will provide a greater level of protection to the general public.").

should be applied reasonably, so as to avoid classifying all controlled environments as uncontrolled.[12]

Finally, several entities noted that the ANSI/IEEE guidelines are likely to change over time -- making it a "living standard" -- and recommend that the Commission take account of these future changes.[13] GTE concurs with this suggestion. However, due process and the Administrative Procedure Act make it necessary to subject any substantive rule change to the rigors of notice and comment. Accordingly, GTE recommends that the Commission delegate authority to the Chief Engineer to establish "fast track" notice and comment procedures so that the Commission may implement any future ANSI/IEEE modifications of their own standard.[14]

II. THE RECORD APPROPRIATELY FAVORS MINIMIZING UNNECESSARY COMPLIANCE BURDENS

In its comments, GTE recommended refraining from requiring "superfluous paperwork"[15] that serves no interest, public or private. Virtually all commenters supported the FCC's overall goal of ensuring that entities subject to the agency's jurisdiction can easily and simply meet the new regulatory obligations. After reviewing the opening round, it is apparent that broad agreement exists on five basic issues.

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12 *See* Comments of Broadcast Signal Labs at 3; CBS et al. at 12-17; EEPA at 17; Matsushita Communication Industrial Corporation of America ("Matsushita") at 8-9; National Association of Broadcasters ("NAB") at 15; UTC at 3-4.

13 *Cf.* Comments of IEEE - Standards Coordinating Committee 28 at 3; IEEE COMAR at 2.

14 *Cf.* AT&T at 3 n.4.

15 GTE Comments at 11.

First, as noted in GTE's opening comments,[16] the record unquestionably supports continued use of categorical exclusions for certain classes of radio transmitters. Indeed, there is a consensus that the public interest would not be served were emitters with minimal potential for exceeding the revised ANSI/IEEE standard to be required to document compliance at every turn.[17] In particular, the comments demonstrate that a categorical exclusion is warranted in the following three areas: Part 22 base stations;[18] Part 21 point-to-point microwave facilities;[19] and Part 15 devices.[20] In order to reduce paperwork for both the public and the Commission, and to ensure that the benefits of any regulation exceed its burdens, the Commission should retain categorical exclusions.[21]

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16 GTE Comments at 12-16. GTE's comments quoted the Commission's conclusions from its 1987 Report and Order maintaining the categorical exclusions.

17 *E.g.* Comments of the Association of Federal Communications Consulting Engineers ("AFCCE") at 5 ("[F]acilities such as: remote pickup, studio to transmitter links, intercity relays, microwave boosters, and translator stations all share similar characteristics which argue for their continued categorical exclusion."); AMSC Subsidiary Corporation ("AMSC Subsidiary Corp.") at 10 ("[T]he existing categorical exclusions by FCC Rule Part remain fully valid, and there is no legitimate basis to change them."). *See also* AMSTV/NBC at 5-7; AFCCE at 4-5; E.F. Johnson at 7; Ericsson at 16-17; LMCC at 9; Linear Corporation ("Linear") at 4.

18 *See* AT&T at 10; BellSouth at 7-8; EEPA at 5-8; McCaw at 7-13; Motorola at 14-20; NABER at 4-6; PacTel at 3-6; Sprint Cellular at 3-4, 5-6; TIA at 18-24; Telocator at 5-8; USTA at 3; UTC at 6-7.

19 AT&T at 7-8 & App. A; BellSouth at 7-8; EEPA at 5-8; McCaw at 7-13; Sprint Cellular at 3-4, 5-6; USTA at 3.

20 Comments of the Electronics Industry Association, Consumer Electronics Group ("EIA/CEG") at 2; Linear at 1-3. AT&T's argument to the contrary is simply wrong as applied, for example, to the GTE Airfone cordless "bulkhead" telephone handsets, now operating at Part 15 levels. The GTE Airfone cordless telephones could never under normal operation exceed the ANSI/IEEE standards even for uncontrolled environments.

21 GTE concurs with commenters that note that exposure of informed workers can be regulated by other means without disrupting existing categorical exclusions. *See* Comments of Glenayre Electronics, Inc. at 4; Sprint Cellular at 4-5.

Second, the record demonstrates that cellular equipment manufacturers are best positioned to be responsible for cellular handset compliance.[22] This is particularly true for portable units with fixed antennas, but is also the case with regard to vehicular-mounted units, where the range of possible antennas and acceptable placement is relatively small. Cellular handset manufacturers should be responsible for testing models and setting forth recommended use and installation procedures that assure continual compliance with the new standards. This should not be inordinately burdensome, in light of mounting evidence that normal use of cellular telephones falls well within the new ANSI/IEEE limits.[23]

Third, the comments recognize that imposing retroactive compliance obligations would be extremely burdensome with minimal, if any, public interest benefits.[24] It simply would be unfair and unnecessary to require recertification of equipment, systems and facilities designed before the new rules were developed and adopted. Moreover, with respect to end user equipment, the normal useful

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22 *See, e.g.,* CTIA at 6 ("SAR compliance can best be accomplished by incorporating it as a requirement of the Commission's radio type acceptance process."); EEPA at 5 (recommending "proof of compliance be submitted as part of the equipment authorization process"). *See also* AT&T at 11; EIA/CEG at 2; McCaw at 15-16; Motorola at 24; NABER at 4-5; Northern Telecom at 5; SWBT at 5; TIA at 12, 29; Telocator at 4-5; UTC at 8.

23 *See, e.g.* E.F. Johnson at 6-8; EEPA at 3; LMCC at 7-9; McCaw at 15-16.

24 *See, e.g.,* AMSC Subsidiary Corp. at 13 ("Since mobile equipment typically lasts for only a few years, however, there is no reason to require. . .compliance with any new standard."); AT&T at 12 (stating that in the absence of verified reports of injury "applying the new [ANSI/IEEE] rule to applications being processed when the rule becomes effective would not produce benefits outweighing the resulting administrative burdens"); *see also* AMSTV/NBC at 7-8; AFCCE at 10; CD&E at 6; JC&A at 9; E.F. Johnson at 8; Ericsson at 14-15; McCaw at 13-15; NAB at 36-37; National Public Radio ("NPR") at 8-9; TIA at 28; Telocator at 12; UTC at 8-9.

life of most consumer equipment ensures that newer, more rigorously tested units will be phased in over a relatively brief span.

Fourth, with respect to facilities not meeting the categorical exclusion, the Commission should develop predictive models, tables and formulas that simplify compliance and obviate the need for field measurements except in the most extreme cases.[25] GTE would support the development of a document similar to the present OST 65 (designed for broadcasters), which would contain the relevant compliance criteria in mobile services facilities that are not subject to categorical exclusions.[26]

Fifth and finally, for all the new policies that result from this rulemaking, the Commission should ensure that compliance burdens are minimized. Consistent with the requirements of the Paperwork Reduction Act,[27] the Commission should work with industry to ensure that compliance showings are uncomplicated and compliance techniques provide repeatable results. Indeed, the Comments show that compliance procedures for future Part 21 and 22 facilities[28] can be assured without significant revisions to the FCC's forms or an applicant's duties.[29]

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25 *See, e.g.*, AMSTV/NBC at 8 (stating the Commission should permit compliance to be demonstrated "through mathematical calculations and modelling"); AFCCE at 2 ("The burden on broadcasters can be mitigated to some extent by well devised procedures that permit effective prediction of exposure and definition of threshold exposures."); *see also* Arizona at 8; EEPA at 11; Matsushita at 10-13; Motorola at 25-26; NPR at 5; SWBT at 6-7; TIA at 31-33; UTC at 7-8.

26 *Cf.* CBS et al. at 22-27; NAB at 10-13.

27 44 U.S.C. §§ 3501-512 (1988).

28 In its comments, Doty-Moore Tower Services provides an exhibit detailing a purportedly non-compliant site. Because Doty-Moore listed two GTE antennas at the site, GTE

III. PREEMPTION OF STATE AND LOCAL RF EXPOSURE OVERSIGHT SHOULD BE INVESTIGATED

Although GTE's initial comments did not address the issue, the docket reflects serious concern that the Congressional goals embodied in the Communications Act could be undermined by inconsistent state RF exposure regulation. The record is replete with examples of state and municipal regulations that erect either a standard at odds with the ANSI/IEEE guidelines or establish procedural requirements so onerous that compliance becomes virtually impossible.[30] In either case, Federal policies embodied in spectrum allocations and license grants will be left unfulfilled.

Unjustified state and municipal restrictions could have particularly severe consequences in the area of mobile services. The FCC's far-sighted efforts to encourage the development of cellular, PCS and other mobile services could be derailed by state regulations more onerous than scientific data warrants, inflamed by "press scares and media hype."[31] Accordingly, GTE recommends

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immediately initiated an investigation of the site. The results of GTE's investigation are totally at odds with Doty-Moore's data. While GTE does maintain two antennas on a building top in Fort Worth, GTE's antennas are located at 32-45-09 N and 97-19-42 W, some distance from the building top shown in the Doty-Moore exhibit. Furthermore, only one of the two antennas transmits; the other is a receiver and contributes no RF energy to the site. In light of GTE's findings, Doty-Moore's data appears seriously flawed and any conclusions Doty-Moore extrapolates from its data should be discounted.

29 *See, e.g.*, LMCC at 9 (stating "a formal certification [to verify ANSI compliance] is unnecessary and would pose an administrative burden"). *See also* AT&T at 13-14; CBS et al. at 42-46; CD&E at 6; NAB at 37-38; NABER at 6-8; PacTel at 12; USTA at 2-4.

30 Comments of the American Radio Relay League at 15; AMSC Subsidiary Corp. at 14; AMSTV/NBC at 8-9; CBS et al. at 40-46; Celpage, Inc. at 4-8; CD&E at 3; Sheldon L. Epstein at 1-4; Ericsson at 17-18; Hammett & Edison at 3-7; McCaw at 17-30; NAB at 40-45; NPR at 9-10; New Jersey Broadcasters Association at 1-5; PacTel at 3-6; TIA at 34-35; Louis A. Williams, Jr. & Associates at 2.

31 *See* Separate Statement of Commissioner Ervin S. Duggan, 8 F.C.C. Rcd at 2862.

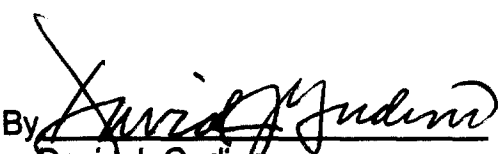
that the Commission promptly issue a further notice of proposed rulemaking to examine such inconsistent policies, with a view toward preempting those that interfere with the development of "a rapid, efficient, nationwide and world-wide wire and radio communications service."[32]

IV. CONCLUSION

GTE reaffirms its support for the *Notice* and the Commission's proposal to update its RF exposure standards through reliance on the 1992 ANSI/IEEE guidelines. Comments on the proposal reflect an overwhelming consensus in favor of the agency's plan. Moreover, most agree that the Commission should minimize compliance burdens wherever possible. Finally, the comments suggest that the Commission should examine state and municipal policies, so as to ensure that important national telecommunications policies are not hampered by unwarranted local restrictions.

Respectfully submitted,

GTE Service Corporation and its
affiliated domestic telephone,
equipment and service companies

By 

David J. Gudino
1850 M Street, N.W.
Suite 1200
Washington, D.C. 20036
(202) 463-5212
0425A

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THEIR ATTORNEY

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32 47 U.S.C. § 151.

Certificate of Service

I, Judy R. Quinlan, hereby certify that copies of the foregoing "Reply of GTE" have been mailed by first class United States mail, postage prepaid, on the 25th day of April, 1994 to all parties of record:

Judy R. Quinlan